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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,111	11/06/2006	John Wilbraham Lester	10103-030-999	1893
20583	7590	07/07/2009	EXAMINER	
JONES DAY			JEAN-LOUIS, SAMIRA JM	
222 EAST 41ST ST			ART UNIT	
NEW YORK, NY 10017			PAPER NUMBER	
			1617	
			MAIL DATE	
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			07/07/2009	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/553,111

## Applicant(s)

LESTER ET AL.

## Examiner

SAMIRA JEAN-LOUIS

## Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28, 30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) 5, 6 and 24-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-23, and 30-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 02/24/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**  
**Election/Restrictions**

Claims 1-28 and 30-31 are currently pending in the application.

Applicant's election of Group I (i.e. a method of treating), election of trilostane as the compound of formula I and absence of additional therapeutic agents in the reply filed on 04/27/09 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Thus, the requirement is deemed proper and is therefore made FINAL.

Claims 5-6 and 24-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group and species, there being no allowable generic or linking claim. Claims 1-4, 7-23, and 30-31 are examined on the merits herein.

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d) for foreign priority based on an application filed in Great Britain on 04/16/2003, which papers have been placed of record in the file.

***IDS***

The information disclosure statement (IDS) submitted on 02/24/06 is acknowledged and has been entered. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

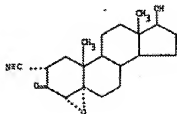
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-4, 7-22, and 30-31 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Jones et al. (GB 2 155 018 A, cited by applicant and filed on an IDS) in view of Young et al. (Journal of Clinical Investigation, June 1994, pgs. 2578-2583).**

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Jones et al. teach 2-cyano steroid compounds for inhibiting adrenal steroidogenesis (see abstract). Particularly, Jones et al. teach that the compound of formula III is a metabolite of trilostane, which has the following structure:



(instant claims 1-3; see pg. 1, lines 8-

19). Additionally, Jones et al. teach that trilostane and related compounds possess adrenocortical inhibiting properties (see pg. 1, lines 20-24). Jones et al. further teach that the compound of formula III is more potent in vitro than trilostane thereby suggesting that trilostane is just as effective as its metabolite (see pg. 2, lines 4-7).

Additionally, Jones et al. teach that the pharmaceutical composition comprising 2-cyano steroids can be optionally combined with other active compounds and can include one or more pharmaceutically acceptable carriers or excipients (instant claims 22 and 30; see pg. 2, lines 27-29). The compositions may be presented as a tablet, a capsule, granulate or suspension (instant claim 18; see pg. 2, lines 37-39). In unit dosage forms, the composition can comprise a trilostane from about 50 to about 250 mg or at lower unit dose levels below about 100 mg (instant claims 7, 12, and 19-21; see pg. 2, lines 44-51). Trilostane and 2-cyano compounds are also taught by Jones to be effective

when administered as a compound in particulate form consisting of particles having a mean equivalent sphere volume diameter of less than 20 microns, at least 95% of the particles having a particle size of less than about 50 microns and a specific surface area of about  $2 \text{ m}^2\text{g}^{-1}$  or higher or preferably about 2 to about  $5 \text{ m}^2\text{g}^{-1}$  (instant claims 13-17; see pg. 2, lines 52-62). Importantly, Jones et al. teach that such compounds can be used in the treatment of adrenal cortical hyperfunction as in hypercortisolism and primary aldosteronism (see pg. 2, line 65 and pg. 3, line 1).

Jones et al. do not specifically teach the use of trilostane in his invention. Likewise Jones et al. do not teach treatment of cardiofibrosis or cardiofibrosis following infarction using trilostane.

However, Jones et al. does teach that the compounds of his invention are in effect metabolites of trilostane. Consequently, the Examiner contends that it would have been well within the purview of the skilled artisan to try trilostane since both trilostane and its metabolites are expected to be equally effective.

Young et al. teach that aldosterone has been shown to cause various cardiovascular effects (see pg. 2578, left col. last line and right col. line 1). In fact, studies by Brilla and Weber demonstrated that rats infused with aldosterone developed hypertension and interstitial cardiac fibrosis (instant claims 4, 8-11, and 31; see right col., last paragraph). Particularly, Young et al. demonstrated that treatment with the

mineralcorticosteroids aldosterone and deoxycorticosterone led to increased systolic BP and caused considerable cardiac hypertrophy (see abstract). Additionally, aldosterone treatment caused marked ventricular interstitial collagen and further confirmed that aldosterone treatment was more potent in causing cardiac fibrosis perhaps due to its effect on cardiac fibroblasts (see pg. 2580, right col., Discussion Section paragraphs 1-3).

Thus, to one of ordinary skill in the art at the time of the invention would have found it obvious to try trilostane for inhibiting aldosterone as Young et al. suggest that mineralcorticoids including aldosterone cause cardiac fibrosis (i.e. cardiofibrosis). Additionally, one of ordinary skill in the art would have found it obvious to utilize trilostane instead of its metabolite given that that both the metabolites and trilostane are taught by Jones et al. to be effective. Moreover, one of ordinary skill in the art would have found it obvious to utilize the trilostane either before or after infarction given that Young et al. demonstrated that mineralcorticoids play a role in the development of cardiofibrosis. Thus, given the teachings of Jones and Young, one of ordinary skill would have been motivated to try trilostane for the treatment of cardiofibrosis with the reasonable expectation of providing a method that is effective in treating cardiofibrosis and a method effective in reducing systolic blood pressure.

### **Conclusion**

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samira Jean-Louis whose telephone number is 571-270-3503. The examiner can normally be reached on 7:30-6 PM EST M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. J. L. /

Examiner, Art Unit 1617

07/05/2009

/SREENI PADMANABHAN/

Supervisory Patent Examiner, Art Unit 1617